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MILITARY ENGINEERS: AN INTERAGENCY BRIDGE BETWEEN HARD AND SOFT POWER

BY

LIEUTENANT COLONEL LEON F. PARROTT
United States Army

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U.S. Army War College, Carlisle Barracks, PA 17013-5050

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Colonel Bryan Groves
Peacekeeping and Stability Operations Institute

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Throughout history, governments and nations have used the elements of national power to ensure the achievement of their specified goals. Among these elements (diplomacy, information, military, economic), military power is the element most remembered in the history books. However, in this modern age of persistent conflict a comprehensive approach that skillfully combines all the elements of national power is the best and most logical way to advance national goals. This coordinated use of all applicable elements of national power is referred to as Smart Power.

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MILITARY ENGINEERS: AN INTERAGENCY BRIDGE BETWEEN HARD AND SOFT POWER

By

Lieutenant Colonel Leon F. Parrott
United States Army

Colonel Bryan Groves
Project Adviser

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U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

ABSTRACT

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Throughout history, governments and nations have used the elements of national power to ensure the achievement of their specified goals. Among these elements (diplomacy, information, military, economic), military power is the element most remembered in the history books. However, in this modern age of persistent conflict a comprehensive approach that skillfully combines all the elements of national power is the best and most logical way to advance national goals. This coordinated use of all applicable elements of national power is referred to as Smart Power.

MILITARY ENGINEERS: AN INTERAGENCY BRIDGE BETWEEN HARD AND SOFT POWER

> The engineer is the key figure in the material progress of the world. It is his engineering that makes a reality of the potential value of science by translating scientific knowledge into tools, resources, energy and labor to bring them to the service of man ... To make contribution of this kind the engineer requires the imagination to visualize the needs of society and to appreciate what is possible as well as the technological and broad social age understanding to bring his vision to reality.
>
> —Sir Eric Ashby
> (British Authority on International Education 1904 -1992)

Throughout history, governments and nations have used the elements of their national power to ensure the achievement of their specified goals. Most notably is the use of military power to impose national will and desires on another nation or geographical region. However, in this modern age of persistent conflict a comprehensive approach that skillfully combines all the elements of national power is the best and most logical way to advance national goals. This coordinated use of all applicable elements of national power is currently referred to as Smart Power. Smart Power is the means of developing an integrated strategy, resource base, and tool kit to achieve American objectives while drawing on both hard and soft power.[1] Hard power is that power which enables the government to coerce, take, or influence compliance to achieve their will within this extremely globalized environment.[2] It is a tasking most often undertaken by the military by executing this hard power mission for the Nation. Soft power is the ability to attract people to one side without coercion and legitimacy is central to its use.[3] Though it is clear Smart Power is the most effective means to achieve national goals and objectives, it is extremely hard to accomplish this complex synchronization and integrations of the elements of power. It requires coordinating efforts of military and civilian agencies and collaborating with intergovernmental

agencies, allied military and civilian agencies, private industry, and non-governmental organizations. One element of military power is inimitably capable of becoming a bridge between interagency, intergovernmental, hard, and soft power. Military engineers, including not only the tactical units, but also departmental civilian and contracted capacity, uniquely position themselves to facilitate a comprehensive and strategic approach, thus allowing the smoothest transition from hard to soft power. Not only can they facilitate this transition but they can also improve interagency cooperation while enabling a comprehensive approach to achieving national objectives.

Military Engineer Structure

The military engineers' unique composition allows them to operate effectively in a range of environments from extremely permissive to high intensity conflict. All of the military services have both tactical engineers and civilian engineers in their organization. The tactical engineers are able to engage in areas deemed too dangerous for permissive civilian activities while applying the fullest capabilities of the organization using reachback to their civilian counter parts. As a rule of thumb, most tactical engineer units are composed of twenty-five percent officers and noncommissioned officers who conduct project planning and management, with the remaining seventy-five percent of the force being skilled and unskilled equipment operators and laborers. There are some specialized tactical units that have a higher amount of professional engineers and trained planners but as a aggregate whole the quarter ratio is an acceptable planning factor. The civilian engineers provide technical expertise and the ability to mobilize the private sector through contracting. This unique ability to mobilize the capabilities of the private sector on a large level, where “mobilization is the process of assembling and organizing national resources to support national objectives in time of war or other

emergencies”[4], allows military engineers to accomplish mission and tasks that exceed their capabilities. It also sets conditions for the transition of operations from the military to other interagency organizations as contract oversight and contracts can transition from military led to another interagency organization in a near seamless manner. Accomplishing the hiring of local skilled and unskilled labor and using locally produced materials, if available, trains these same laborers to develop and improve local capacity with the goal of transitioning these projects ultimately to the host nation. This accomplishment benefits all parties involved.

The Department of the Army Engineer structure is the largest military engineer organization in the Department of Defense (DoD). The U.S. Army Corps of Engineers (USACE) is comprised of 34,000 dedicated civilians and approximately 600 military who execute engineering projects and solutions for their customers in over 90 countries worldwide.[5] This disciplined and professional civilian work force maintains America’s infrastructure, provides military facilities where service members train, work and live, provides research and development for the war fighter, promotes stability abroad, energizes the economy, restores the Nation’s environment, and provides recreational opportunities at campgrounds, lakes and marinas to name a few of the many and diverse capabilities USACE provides.[6]

The tactical engineers provide mobility, counter mobility, survivability, general engineering, and topographical engineering depending upon the mission. In addition to these traditional engineer functions, they have many individual units with wide ranging capabilities such as fire fighting, prime power, and well drilling to support missions. The bulk of the Army engineer structure is located in the reserve component with a manning

strength of approximately 49,500, while there are approximately 17,000 active duty engineers.[7] The active duty engineers are located within five separate engineer brigades, two engineer companies for each heavy brigade combat team (BCT), and one engineer company for all other BCT. The engineer battalions within the separate engineer brigades provide theater and general support to operations. The engineer companies in the BCTs provide direct support to the BCT operations.

The bulk of the army engineer capabilities in the reserve component round out engineer capabilities and allow flexibility to surge and mass engineer effort at the time and place needed for mission accomplishment. There is an added benefit of the majority of the engineer force being located in the reserve component. Many of the reserve engineers are highly skilled technicians, professional engineers, or equipment operators who bring these valuable skills to support the mission at no additional cost than those incurred at mobilization.

Though much smaller than the Department of Army Engineer Corps, the Department of the Navy has both a tactical and civilian engineering capability at the Nation's disposal. The Naval Facilities Engineer Command (NAVFAC) consists of 15,000 Civil Engineer Corps officers, civilians, and contractors who serve as engineers, architects, and contract specialists delivering best value facilities engineering and acquisition for the Navy and Marine Corps, Unified Commanders, and Department of Defense agencies along six business lines: Capital Improvements - Environmental – Expeditionary - Public Works – Asset Management – Contingency Engineering.[8] On the tactical side of the Department of the Navy, there are 16,000 men and women comprising the Naval Construction Force meeting the global demand in this time of

persistent conflict.[9] This collection of tactical Navy engineers is best known as Seabees. These Seabee's are actively engaged across the entire range of military operations, especially Shaping (Phase 0) and Security/Stability (Phase IV) operating at an extremely high operational tempo, which requires them to remain flexible to meet the needs of the Nation and Navy.[10] Similar to the Department of the Navy, the Department of the Marine Corps possesses organic tactical engineering capabilities but they are extremely limited in number and focus predominantly on direct support to Marine Corps units.

The Department of the Air Force engineering capability is comparable in size to that of the Department of the Navy. The primary mission for the tactical Air Force engineer units is to support unmanned and manned aerial weapon systems while enabling the rapid global mobility of other air assets such as strategic airlift, bombers, and fighter aircraft.[11] These engineers have the capability to deploy general engineer units rapidly as part of a joint task force to open, establish, and maintain airbase power projection platforms.[12] They can deploy as well at the detachment level in support of specific missions and operational tasks such as airfield pavement evaluations; crash and fire rescue; explosive ordnance disposal; emergency management response; airfield damage repair; facility construction and maintenance; and utility systems construction, maintenance, aircraft arresting system installation and maintenance, and airfield lighting, marking and installation of navigation aids.[13] These missions and tasks are accomplished by the approximately 34,000 total tactical engineers in the active and reserve components of the Air Force.[14] Like both the Departments of the Navy and Army, the Air Force has a civilian component with engineering capabilities. This civilian

component is composed of highly skilled professionals who perform such tasks as conduct research for future systems, provide contract support, provide installation support, or serve as subject matter experts. Comparable to the services provided by NAVFAC and USACE, the Air Force Contract Augmentation Program (AFCAP) provides civil engineer and services personnel with a force multiplier by leveraging use of the commercial sector in meeting urgent mission requirements.[15]

Plainly, the DoD has the largest deployable and exportable engineering capability within the interagency. With approximately 116,500 tactical engineers and over 49,000 civilian engineers at its disposal, this existing force stands ready to execute the goals of the Nation. This robust tactical capability allows the military engineer to conduct engineering operations almost anywhere in the world and under almost any type of condition. No other interagency organization can accomplish this engineering feat though it is a true that the U.S. Agency for International Development (USAID) does have the ability to accomplish projects thru Non-Governmental Organizations (NGO)s and other implementing partners. However, it is the extensive contracting capabilities within the military engineer organization, accomplishing an extremely large-scale infrastructure and development project, thus allowing it to facilitate a comprehensive and strategic approach to allow the smoothest transition from hard to soft power. Civil augmentation programs, such as the contingency contracting conducted by USACE, the global contingency construction contract program executed by NAVFAC, and the contract augmentation programs of AFCAP play a critical role in mission accomplishment for the DoD. These programs properly synchronized with other

interagency organizations set the conditions for and facilitate the smooth transition between hard and soft power while improving interagency cooperation.

Current Guidance, Doctrine, and Leading Ideas

Based on the capabilities shown above, military engineers serve as an enabler to the achievement of Smart Power due to their internal composition of both hard and soft power components. Not only does the United States of America have the best hard power capabilities with a robust and capable military, but it also has the most impressive soft power capabilities on the globe. The majority of the soft power capability is located in the civilian and private sectors with a $14.2T economy.[16] In this time of persistent conflict, it is the government's responsibility to develop the ability to grow soft power in areas needed and capitalize on resources found within these sectors.[17] Leveraging this soft power is easiest in a more permissive environment and is regularly done around the world in areas where current conditions allow. However, when there is an area of conflict or a transition from stability to conflict is inevitable, conditions must be set to allow the most rapid and effective use of soft power. One of the critical components of this transition is the application of Smart Power as needed to have a comprehensive approach to the solution. A comprehensive approach integrates the cooperative efforts of the departments and agencies of the United States Government, intergovernmental and nongovernmental organizations, multinational partners, and private sector entities to achieve unity of effort toward a shared goal.[18] This is not a new concept and many of the current governing documents published at the national level indicate this need for a comprehensive approach while indicating the need for cultural change in interagency operability.

The three key documents driving the national goals and execution strategy of the DoD and military engineers are the National Security Strategy (NSS), the National Defense Strategy (NDS), and the Quadrennial Defense Review Report (QDR). “The President’s 2006 (NSS) describes an approach founded on two pillars: promoting freedom, justice, and human dignity by working to end tyranny, promote effective democracies, and extend prosperity; and confronting the challenges of our time by leading a growing community of democracies. It seeks to foster a world of well-governed states that can meet the needs of their citizens and conduct themselves responsibly in the international system. This approach represents the best way to provide enduring security for the American people.”[19] The NDS describes the overarching goals and strategy of the DoD and presently it will support the NSS objectives.[20] The NDS further highlights, “Over the next twenty years physical pressures – population, resource, energy, climatic and environmental – could combine with rapid social, cultural, technological, and geopolitical change to create greater uncertainty. This uncertainty is exacerbated by both the unprecedented speed and scale of change, as well as by the unpredictable and complex interaction among the trends themselves. Globalization and growing economic interdependence, while creating new levels of wealth and opportunity, also create a web of interrelated vulnerabilities and spread risks even further, increasing sensitivity to crises and shocks around the globe and generating more uncertainty regarding their speed and effect.”[21] The 2010 QDR presents two main objectives. The first of these objectives is “to further rebalance the capabilities of America’s Armed Forces to prevail in today’s wars, while building the capabilities needed to deal with future threats”.[22] The second objective is the “reform of

the Department's institutions and processes to better support the urgent needs of the war fighter".[23]

The QDR further emphasizes that these objectives must be accomplished through closer integration between international partners, allies, governmental organizations, and the private sector. It is easy to see that military engineering has the ability to facilitate all the objects outlined in these three documents while either serving as a member of an interagency team or by facilitating the transition to another interagency organization. It remains in the best interest of the nation to grow and improve the ability to employ both hard and soft power, at the time and location of its choosing to meet successfully the complex challenges before the Nation. This is only possible with full interagency integration.

In the statements below, from the Army Field Manual (FM) 3-07 Stability Operations, the need for a clear integration strategy is evident in the complexity of the tasks required during a stability operations mission. The mission requires that "military tasks executed to support the economic sector are critical to sustainable economic development. The economic viability of a state is among the first elements of society to exhibit stress and ultimately fracture as conflict, disaster, and internal strife overwhelms the government."[24] Though economic development is a better suited mission to an interagency team that partners with civilian industry, in many of the volatile areas of the world it is often the military forces that must execute the first steps to ensure security and set the conditions for the return to a stable economy. In this globalized economy, time and time again the "signs of economic stress include rapid increases in inflation, uncontrolled escalation in public debt, and a general decline in the state's ability to

provide for the well-being of the people. Economic problems are inextricably tied to governance and security concerns and as one institution begins to fail, others are likely to follow."[25]

As highlighted above, the support of the economic sector remains a critical goal and the military engineer is best equipped to accomplish this mission and with proper synchronization between the interagency can effectively set conditions to fully apply smart power in these situations. The most obvious role for the military engineers is their ability to improve or develop infrastructure within a region to allow economic growth while meeting the needs of the local population. This infrastructure development must

> Focus on the society's physical aspects that enable the state's economic viability. These physical aspects of infrastructure include construction services, engineering, and physical infrastructure in the following sectors: Transportation, such as roads, railways, airports, ports, and waterways – Telecommunications - Energy, such as natural resources, the electrical power sector, and energy production and distribution - Municipal and other public services.[26]

Military engineers possess expertise and equipment needed to build and repair civil infrastructure as well as that often displayed by combat engineers in their mobility, counter mobility and survivability roles. These capabilities can be can help establish conditions for a cooperative security environment. Cooperative security is the set of continuous, long-term, integrated, comprehensive actions among a broad spectrum of the U.S. and international governmental and nongovernmental partners that maintains or enhances stability, prevents or mitigates crises, and enables other operations when crises occur with the military contribution to these efforts focused on mobilizing cooperation and building relationships to enhance regional security.[27]

The future global operating environment will include the following characteristics: economic, demographic, and societal stressors, a greater impact of transnational

networks on civil conflict, continuing informational revolution, as well as a more level playing field in the availability and use of information.[28] Additionally, an emergence of powers with economic, political, or military capabilities rivaling those of the United States, climate change and other issues of the natural environment and lastly, competition for energy and its effect on geopolitical relations.[29] These types of challenges cannot be overcome without a comprehensive smart power plan. Current military and governmental policies recognize these challenges and acknowledge that fullest integration of all the elements of our national power is needed to address them. Engineers will operate with other government agencies, foreign governments, nongovernmental agencies, and international governmental agencies, in and under a variety of conditions and circumstances.[30] At present our military engineers have the ability to operate in this environment. Military engineers are active members of joint interagency coordination groups and civil-military operations centers when deployed. With further refinement to current policy and procedures, they will serve as the bridge between hard and soft power while integrating the full abilities of the interagency and nongovernmental organizations.

From a Historical Perspective

History is full of examples of the impact military engineers have on enabling a nation to achieve its national goals. As the Roman Legions expanded their empire throughout the known world, their engineers were instrumental in enabling the transition from hard to soft power. They built road and infrastructure in every location they occupied. Arguably, some of these projects were undertaken to keep the soldiers occupied and out of trouble while a long way from home. However, the resulting impact on the local population and expansion of soft power was significant. Roads were built,

agriculture and population centers expanded due to aqueduct construction, and stability was ensured by the efforts of the military engineer. As the frontier expanded, military direct control within the Roman political system transitioned to other governmental agencies control. The Roman Legions provided some of the earliest and strongest examples of the use of a comprehensive and strategic approach to allow the transition from hard to soft power.

During World War II, military engineering efforts led to a cooperative security environment. Towards the end of the war and for many years after the end of hostilities, the continent of Europe was catastrophically altered. The effort of military engineers was critical to initially reestablishing the critical infrastructure of post-war western Europe. This reestablishment allowed the civilian side of the military engineers such as USACE to engage in these countries in some of the largest infrastructure development projects in history such as power generation and distribution systems. In turn, this allowed a smooth transition from military occupation and control in Europe to the other elements of national power. Even today, sixty-five years after the war, USACE is still actively working as a key team member of the interagency to ensure the stability and security of our allies in Europe.

The counterinsurgency fight in Vietnam was very similar to the conflicts currently ongoing in Iraq and Afghanistan. Like the conflicts of today, the security of the local population and development for economic growth were key to success and the ultimate transition from hard to soft power. Excerpts from an engineer battalion operations order in 1969 highlights the ability to set conditions for the transition from hard to soft power in a volatile environment. “US Army Engineers made rapid progress paving main route

QL13 from Saigon north through III Corps to An Loc. The paving eased military resupply, eliminated casual mining of the road, and assured continuous usability during the rainy season."[31] Clearly, security must be established first and within the intergovernmental agency. It is uniquely the militaries' function to accomplish this mission, but through military engineer efforts conditions are set for the other elements of national power.

> The most dramatic change was in the activity of the rural population as the asphalt moved forward with an explosion of commerce evident everywhere. Vegetables and pigs went south to the cities, while pots, pans, and yard goods went north to the once nearly isolated villages, first by animal carts, then Lambretta scooters, Citroen buses, and GMC trucks.[32]

The establishment of security leads to the expansion of economic growth and a renewed empowerment of the local population. "The Viet Cong threat to villages was broken by the increased responsiveness of Vietnamese government forces and services over the improved road plus the realization by the population of an improving quality of life through the lively increase in commerce."[33]

Another example from Vietnam is possibly an example of what could be considered the pinnacle of interagency cooperation and example worth emulation in operations today. In 1966 under the guidance of the National Security Council, Civil Operations and Revolutionary Development Support (CORDS) team were developed and ultimately established throughout Vietnam. The CORDS four main missions were to establish security, impede and destroy the insurgents ability to operate within the local populace, establish development possibilities for the local populace, and to conduct these operations on as large a scale as possible.[34] The CORDS were composed of a well synchronized team of both civilian experts and military elements.

Military engineers easily fit into these organizations and could provide both security while setting conditions for the creation of development opportunities through infrastructure improvement. Like the Roman Legion and World War II examples, this is a textbook example of military engineers serving as the bridge between hard and soft power while integrating the full abilities of the interagency.

Examples in Iraq and Afghanistan

The current ongoing conflicts in Iraq and Afghanistan exemplify the need to have a synchronized smart power policy that leverages the best balance of interagency cooperation. General Stanley McChrystal, Commanding General, ISAF, recognizes this need by the following statements on his initial assessment of the situation in Afghanistan. He states that "NATOs International Security Assistance Force (ISAF) has an important asymmetric advantage; it can aid the local economy, along with its civilian counterparts, in ways that the insurgents cannot. Local development can change incentive structures and increase stability in communities."[35] Along with other military efforts and given the deteriorating security situation in Afghanistan, the military engineer, synchronizing with the long-term plan, can begin to set conditions for other governmental agencies to operate in these areas. GEN McChrystal further states that

> Economic opportunity, especially job creation, is a critical part of reintegrating the foot-soldier into normal life and economic support to counterinsurgency is distinct from and cannot substitute for longer-term development initiatives. With some coordination it can lay the groundwork for, and complement, those longer-term efforts and show that the Afghan government is active at the local level.[36]

His statements further clarify the need for a smart power plan that integrated short and long-term development goal. The military engineer, using both its tactical and civilian components, is best capable of working local development through national

development. They are further capable of synchronizing efforts with other governmental and nongovernmental organizations to facilitate the transition to soft power as tactical conditions permit. This concept is highlighted again in GEN McChrystal's initial assessment where military engineers are the best-suited organization to achieve his ultimate objective of winning over the population while providing that bridge between hard and soft power:

> ISAF will provide economic support to counterinsurgency operations to help provide a bridge to critical development projects in priority areas that United Nations (UN) agencies and the international community cannot reach, while working closely with United Nations Assistance Mission in Afghanistan (UNAMA) to help set conditions for Non-governmental Agencies (NGOs) to enter stabilized areas.[37]

GEN McChrystal's aforementioned statements show the recognition and integration of lessons learned over the last eight years of conflict. However, this does not mean that these actions have not been occurring during the last eight years. COL John King, who served as the Deputy Commander for 1st BCT, 101st Airborne Division in the Salah ad Din Province in Iraq during a 15-month tour between 2007 and 2008, highlights an example similar to the operations order mentioned from Vietnam. COL King emphasizes that during a counterinsurgency the securing of the population, the rebuilding of key infrastructure, and the creation of jobs are critical elements of accomplishing the mission and the ultimate transition to independent governance.[38] In achieving the above three key tasks, COL King highlights the need for interagency synchronization when he indicates the major players are the ground force commander, the U.S. State Department representative, and the engineer commander.[39]

COL King provides the following example of how this integration and synchronization worked:. The ground force commander initially secured the area of

operation with the assistance of the engineer commander. Once the areas are secured, key projects and tasks with the goal of improving the economic situation and create jobs are identified. This identification process is done in an interagency environment with the U.S. State Department representatives being a critical part of the planning process. Then with the U.S. State Department representatives, such as the USAID and Department of Justice, present during execution, the engineer commander accomplishes such tasks as road repairs, bridge repairs, irrigation repair, school repairs, and market repairs to improve economic conditions to set the condition for long-term development. This example is a practical example of the ability of the military engineer to serve as that bridge between hard and soft power while setting the conditions for the full application of smart power.

Like COL King, LTC Rich Pannell, the Deputy Commander, 18th Engineer Brigade, who served in both Kirkuk and Mosul, Iraq during 2008 and 2009, has experienced first-hand the need to maximize interagency operations to achieve mission accomplishment. His key observation from Iraq is the need to improve the unity of effort during operations. This was illustrated when his brigade was moved from Kirkuk to Mosul to merge with a Civil Affairs unit in order to establish a Reconstruction Operations Cell and a Construction Effects Operations Cell. Given the lack of a functional government in the province and a dangerous environment due to insurgent activities, this quickly became a demanding challenge. Managing the challenge with a unity of effort approach where the Provincial Reconstruction Team was struggling with improving a weak provincial government, the maneuver commander focused on security operations, and the engineer brigade worked on understanding the reconstruction

problems and developing executable solutions.[40] Given the dynamics of this complex unity of effort event, LTC Pannell felt the engineer brigade could provide that conduit between hard and soft power having the capacity to shift from offense to stability operations and then further transition lead operations to other interagency elements.

A Practical Application in Africa

Important international ongoing actions in the African region and key US Government objectives provide a framework to lay out an outstanding example of how military engineers can improve interagency operations while bridging the gap between hard and soft power in one of the most violent regions on earth. To understand completely, overviews of key demographics in Africa, as well as, the key players in the African area of operations are first reviewed. The final coordinating draft of the 2009 Joint Operating Environment update shows Africa is the most politically unstable region, has the highest probability of water scarcity by 2025, and accounts for seven percent (equal to that invested in North America) of Chinese overseas direct investment.[41] Africa, with a population of over 990,000,000 inhabitants, is the second largest populated continent, accounting for fifteen percent of the world population.[42]

Despite the challenges facing Africa, President Obama emphasized the importance of the area when he told the Ghanaian Parliament that "the 21st century will be shaped by what happens not just in Rome or Moscow or Washington, but by what happens in Accra as well."[43] Later in his speech he reemphasized this point when he stated that in Ghana ".... Your prosperity can expand America's. Your health and security can contribute to the world's. And the strength of your democracy can help advance human rights for people everywhere."[44] Given the challenges in Africa and the importance placed on this region by President Obama, only a smart power approach in

the region that combines USAID, the African Union, the United Nations (UN), African Command (AFRICOM), and the U.S. Department of State, via the US Embassy Teams with US Military Engineers, serving as that bridging capacity between the interagency organizations can be effective.

The United Nations (UN) remains actively engaged throughout the world and expends an extremely large amount of its resources for peace keeping in Africa. At present, seven of sixteen UN peace-keeping missions, or 46%, are ongoing in Africa.[45] Of the 116,149 UN affiliated personnel involved in the 15 missions, 94,750 are involved in Africa.[46] The UN approved budget for peacekeeping missions for 2009-2010 is approximately $7.75B with about $5.69B dedicated to missions in Africa.[47] These figures represent over 80% of their peacekeeping personnel and 73% of that budget. This does not cover the entire scope of U.N. work in Africa. For example, they remain active in development, human rights, humanitarian efforts, environmental issues, and international law. However, it is clear Africa is a region rapidly emerging that the world, as indicated by the support provided from the 192 UN member nations, will remain actively engaged with through this tumultuous development period. The U.N. is one of many organizations actively involved in the African region that the US Military Engineer can assist in the fullest integration into United States Government (USG) operations.

The U.S. Agency for International Development (USAID) remains very active and is an integral part of the ultimate achievement of national objectives in the African area of operation. “The U.S. Government provides assistance to 47 countries in Africa, and USAID operates 23 bilateral missions on the continent. Three regional missions support activities in countries with a limited USAID presence and manage programs that

strengthen institutional capacity to contribute to stable and secure development in Africa."[48] USAID has nine priorities in the region – enhance strategic partnerships, consolidate democratic transitions, bolster fragile states, strengthen regional and sub-regional organizations, strengthen regional security capacity, strengthen Africa counterterrorism cooperation and capacity, stimulate Africa's economic development and growth, implement presidential initiatives, and focus on humanitarian and development assistance programs.[49] These priorities fall under the umbrella of four main objectives – governing justly and democratically, investing in people, economic growth, and humanitarian assistance.[50]

Despite USAID's robust ongoing activities in the African region, there are periods of times due to the violent nature of the region that they are unable to accomplish their missions. However, the military engineer can continue to develop these programs for USAID by assisting on infrastructure, economic growth, and sanitation type projects while training local civilian and military engineers until the volatility in the area subsides to a level USAID can again regain control.

The African Union (AU) was formed in 1999 by the heads of state and member governments of the Organization for African Unity (OAU) as a replacement organization to build on the 20 plus years of progress the OAU had already conducted to improve stability, security, and economic growth in Africa. The AU has three main goals in its vision statement – accelerated socio-economic integration, partnership between governments and all segments of civil society with a focus on women, youth, and the private sector, and the promotion of peace, security, and stability in Africa.[51] The AU is aggressively pursuing its 14 objectives including education, health care, economic

development, and stability.[52] The vehicle for achieving these visions and objectives is through their seven organs of governance, financial institutions, and special technical committees.[53] It is clear the AU has all the leadership and execution mechanisms in place to accelerate their movement rapidly into the 21st century given the proper level of mentorship and partnership, both of which military engineers are fully capable and prepared to provide.

The United States Africa Command (AFRICOM) was founded October 2007 following over 10 years of mission analysis by the DoD. It became clear that Africa was emerging in its strategic importance and with the worldwide rapid globalization, peace and stability in the region was critical to the international community and not only to Africa.[54] AFRICOM is not intended to take the military lead in actions in Africa but to build capacity with the regional partners so as to effectively engage the challenges that arise. Though there are relatively few US military stationed in Africa (mostly in the Horn of Africa (HOA), with Headquarters, JTF HOA in Djibouti), AFRICOM is involved in hundreds of projects and military-to-military exchanges ranging from counter terrorism, humanitarian and medical assistance, construction, education, etc.

> Development, diplomacy, and defense programs are integrally linked, and AFRICOM is implementing the National Defense Strategy's vision of a new jointness by supporting and improving collaboration with other agencies and departments across our Government, as well as improving coordination with international, intergovernmental, and nongovernmental organizations. We achieve the greatest effect for our nation when we coordinate and harmonize our collective efforts in support of our common objectives.[55]

Another of the key players in the African area of operations are the United States Embassy Country Teams. Ultimately, it is the Ambassadors responsibility to approve all military-to-military engagements in their respective country. Additionally, these teams

are tailored to meet the challenges of the target country while ensuring achievement of national objectives. For example, these teams could have Department of Justice personnel or Department of Agriculture assigned if the Ambassador's assessment is that one of these areas needs improvement in the respective country. During humanitarian relief efforts, the Ambassador and his country team remain in charge of these operations regardless of the number of military forces supporting the mission.

After reviewing the key players in the African area of operations, it is clear one of the ways to facilitate the USG goals and objectives in the area is through a solid synchronized partnership between military engineers and the numerous principals. An example of how this may happen and how military engineers could serve as the bridge between hard and soft power, is a humanitarian relief mission, due to a natural disaster. When a catastrophic natural disaster such as a tsunami occurs, the host nation and Embassy Country Team are quickly overwhelmed by the magnitude of the devastation. The Embassy Country Team will call for immediate assistance, which normally arrives in the form of the military due to its rapid deployability for contingency missions. USAID and other governmental organizations also will arrive but normally do not have the capacity initially to take the lead in large-scale contingency missions. Likewise, the host nation government will call for assistance from many regional and international organizations such as the AU and the UN. In this situation with so many critical players, the military engineer, through proper initial coordination and planning, serves as the bridge, ensuring the proper execution of smart power. The military engineer provides the initial response while coordinating with the AU, UN, USAID, Host Nation, and Embassy Country Team ensuring their efforts, both tactical and through contracts

awarded, and will readily transition to other interagency and governmental organizations following the initial response period. One does not have to look very hard to see examples similar to this hypothetical situation in Africa where the interagency has effectively synchronized military engineer effort with other agencies. From ongoing relief and reconstruction effort in Haiti to the work accomplished in the 2005 recovery, relief, and reconstruction effort following the earthquake in Pakistan, you see examples of military engineers working closely with USAID, embassy country teams, NGOs and host nation governments to better integrate the interagency while providing the bridge between hard and soft power. If the efforts are properly synchronized, this transition period is rapid and seamless, allowing the USG to apply the fullest capabilities of smart power.

After looking at military engineer strength and capabilities, current doctrine, historical examples, examples from Iraq and Afghanistan, and looking at a practical application in the African area of operations, it is obvious the military engineers are uniquely positioned to facilitate a comprehensive and strategic approach to allow the smoothest transition from hard to soft power. The improvements and growth in the integration of smart power and improvements to interagency operability should continue with the military engineer serving as the bridge between organizations. Current doctrine, guidance, and policies recognize the need for an interagency environment but this practice has not yet fully developed. To ensure we codify the lesson learned, all Field and Joint manuals must include an interagency annex, not just a mention of interagency within the body of the document. Additionally, military engineers should focus on improving their interagency operability with the goal of providing the bridge for the

transition from military control to civilian control of operations. This final goal is to establish an interagency operating environment that can efficiently manage transition of control to a stable host nation government. This goal can be achieved through education and training and early coordination and synchronization of operations and military engineers can help make this happen.

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